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WILDLIFE

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THE red squirrel (*Sciurus vulgaris*) has been in decline in Great Britain for decades and numbers are presently estimated at 160,000, in various locations, with approximately 120,000 of these resident in Scotland. The role of the grey squirrel (*Sciurus carolinensis*) in this decline, as a vector for squirrelpox viral disease, is well documented, but the role of other disease agents such as enteric viruses impacting on this residual population is less well understood. Enteric adenoviral disease (Sainsbury and others 2001, Duff and others 2007) and a small number of adenovirus-associated deaths (Everest and others 2008) have been reported in red squirrels from both England and Wales, and indeed, rotavirus has recently been identified in the species for the first time in Scotland (Everest and others 2009a), indicating the potential for other viral diseases that occur in red squirrels to have an influence on their conservation.

In early 2009 at Veterinary Laboratories Agency (VLA) – Weybridge, using negative contrast stain transmission electron microscopy, we investigated the possible presence of enteric viruses by examining faecal material from 70 animals presenting with enteropathies, such as diarrhoea and intussusception, archived between 2000 and 2009. Of these, 15 faecal samples were from red squirrels from Scotland, submitted by the University of Edinburgh and the Institute of Zoology. Although low in number, virus particles of a size, shape and surface morphology consistent with adenovirus were detected in one animal.

This sample was from a subadult male, weighing 145 g, presented to the University of Edinburgh on February 18, 2009, from Dumfries and Galloway (grid reference NX839608); the squirrel showed faecal staining with distended gas-filled intestines. The degree of autolysis precluded any meaningful histology.

PCR analyses (Everest and others 2009b) identified the presence of adenovirus DNA, confirming the initial electron microscopy findings.

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